C L A I M S

1.   System for back-up of data objects stored on a real
smart card comprising:

a virtual smart card control component (8) for
handling creating of a virtual smart card and for
providing the security and the read/write process for
the virtual smart card (VSC-2, 4, 6)

a smart card manager component (18) for providing a
menu controlled graphical user interface allowing
user actions for initiating creation of a VSC and
back-up of data objects being stored in said real
smart into said corresponding area of said virtual
smart card,

a communication component (12, 14, 20, 22, 26, 28)
for transferring said data objects to be backed-up
from said real smart card (32) to said virtual smart .
card (2, 4, 6) by using functionality of said virtual
smart card control component (8).

2.   System for secure copy of data objects being stored
in a virtual smart card (2, 4, 6) into a real smart
card (32) comprising:

a storage media (2, 4, 6) for providing a virtual smart card having data objects to be securely copied into the assigned area of a real smart card (20)

a virtual smart card control component (8) for handling creating of a virtual smart card and for providing the security and the read/write process for the virtual smart card (VSC)

a communication component (12, 14, 20, 22, 26, 28) for providing access to a real smart card via access to a smart card driver (22) assigned to the smart card reader (20) and a card agent(28) for providing smart card specific commands for writing said data objects to be securely copied from said intermediate buffer (10) into said assigned area of said real smart card (32)

a smart card manager component (18) providing a menu controlled graphical user interface allowing to initiate user actions for creation of a VSC and secure copy of data objects being stored in said virtual smart card into said corresponding area of said real smart card.

3.   System according to claim 1, wherein said communication component comprising:

a smart card API component (12) providing an
interface to said smart card manger component (18),
an interface to said virtual control component (8),

5   and an interface to a smart card & SC Reader Handler
component (14) providing an interface to all
available smart card reader driver(s)(22), wherein
said smart card & SC Reader Handler (22) has an
interface to a smart card agency component (26)

10   providing an interface to all available smart card
agent(s)(28) providing smart card specific commands.

4.   System according to claim 1, wherein said smart card
API (12), said smart card manager component (18) and

15   said virtual smart card control component (8) form an
integral component.

5.   Method for back-up of data objects being stored
on a real smart using a system according to claim 1:

characterized by the steps of:

20   opening and displaying data objects of a real smart
card to be backed-up via said smart card manager
graphical user interface

selecting data objects to be backed-up via said smart

card manager graphical user interface

automatically creating a virtual smart card (VSC) by
said smart card control component via said smart card
manager graphical user interface, wherein said

5   created virtual smart card having a defined logical
file structure being identical with the logical file
structure of said real smart card in use

opening a data object area of said created virtual
smart card for placing said data objects to be

10   backed-up via said smart card manager graphical user
interface

copying data objects to be selected into said area of
said created virtual smart card via said smart card
    manager graphical user interface

15   storing said virtual smart card on a secure permanent
storage media.

6.   Method according to claim 5, wherein said step for
automatically creating of said virtual smart card
comprises the following steps:

20   automatically creating a defined file structure
having defined areas for placing data objects by a

virtual smart card control program

automatically assigning a password and an unique
identifier to said defined file structure created and
storing both in the respective area of said defined
file structure by said virtual smart card control
program

electronically storing said defined file structure
including said data objects on a storage media
(virtual smart card.

7.   Method according to claim 6, wherein said defined
file structure of said virtual smart card comprising:

a public area in which public data objects having no
access conditions are placed

a private area in which private data objects being
encrypted are placed

a secret key area in which key data objects being
encrypted are placed

a password area in which a password being encrypted
is placed

an unique identifier area in which an unique
identifier for identifying the VSC is placed.

8.   Method according to claim 7, wherein said defined
         file structure of said virtual smart card is a
         dedicated file structure containing elementary files
         for defining the areas in which said data objects are
         to be placed.

9.   Method according to claim 7, wherein user actions via
         said menu controlled graphical user interface with
         respect to the private areas of said virtual smart
         card require the input of a password.

10.   Method according to claim 5, wherein said opening,
         copying, and storing steps are accomplished using a
         respective functionality provided by the virtual
         smart card control program.

11.   Method according to claim 5, wherein said virtual
         smart card is created on a server system and is
         provided to a client system via a secure channel.

12.   A computer program product stored on a computer
         usable medium comprising computer readable program
         means for causing a computer to perform the method of
         anyone of the claims 5 to 11 when said program

product is executed on said computer.